If you are using a printed copy of this procedure, and not the on-screen version, then you <u>MUST</u> make sure the dates at the bottom of the printed copy and the on-screen version match.

The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.

Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ

Training Office, Bldg. 911A.

#### C-A OPERATIONS PROCEDURES MANUAL

#### **ATTACHMENT**

## 4.120.8.d 8 O'Clock (PEER 17) Sweep Tests

C-A-OP	M Procedures in v	which this Attachme	nt is used.
4.120			
	Hand Proc	essed Changes	
HPC No.	<u>Date</u>	Page Nos.	<u>Initials</u>
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	-		
	Approved:	Signature on	File
	Collid	er-Accelerator Depa	artment Chairman

# 4.120.8.d 8 O'Clock (PEER 17) Sweep Tests

### PASS ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title:	Checksum:	
Division B Software Filename and Checksum: Title:	Checksum:	
<u>Initial testing complete</u> :		
Test Team Leader's Name (Print):	Life Number:	
Test Team Leader's Name (Sign):	Date://	
Acceptance test procedure complete (following repairs and retesting if required):		
Test Team Leader's Name (Print):		
Test Team Leader & Name (Trint).	_ Life Number	
Test Team Leader's Name (Sign):	Date:/	
Test results reviewed by:		
Safety Section Head's Name (Print):	Life Number:	
Safety Section Head's Name (Sign):	Data: / /	
Safety Section flead's Ivame (Sign):	Date://	
Test results accepted by Radiation Safety Committee:		
RSC Member's Name (Print):	Life Number:	
RSC Member's Name (Sign):	Date://	

1.1		To Sweep	Zone <b>7Z1</b>	
		CLOSE	Gates 7GS1-I/O, 7EL1, 7GI1 and 7MD1	
		VERIFY RESET	Gates 7GS1-I/O, 7EL1, 7GI1 and 7MD1 are Gate 7EL1 and 7MD1	CLOSED
		VERIFY	Gate 7EL1 and 7MD1 are	RESET
	Ц	PLACE	Peer 17 in Mode 16	
		VERIFY	Peer 17 is in Controlled Access	MODE 16
	_	ACTIVATE	Check station 7CS1	DI INIZCONCE
		VERIFY ACTIVATE	Check station 7CS1 indicator ( Area Secured ) Check station 7CS2	BLINKS ONCE
	П	VERIFY	Check station 7CS2 indicator ( Area Secured )	BLINKS ONCE
	_	ACTIVATE	Check station 7CS3	
		VERIFY	Check station 7CS3 indicator (Area Secured)	BLINKS ONCE
	П	ACTIVATE VERIFY	Check station 7CS4 Check station 7CS4 indicator ( Area Secured )	ON
		VEXIF 1	Check station /C54 indicator (Area Secured)	OIN
		EXIT	Gate 7GE1 with Simultaneous Release	
		VERIFY	MCR sees Zone 7Z1	SWEPT
1.2		To Sweep	Zone <b>8Z1</b>	
1.2		-		
1.2		CLOSE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are	CLOSED
1.2	_	CLOSE VERIFY PLACE	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16	
1.2	0	CLOSE VERIFY PLACE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access	CLOSED MODE 16
1.2	_	CLOSE VERIFY PLACE VERIFY ACTIVATE	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1	MODE 16
1.2	_	CLOSE VERIFY PLACE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access	
1.2	_	CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured )	MODE 16
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3	MODE 16 BLINKS ONCE BLINKS ONCE
1.2	_ _ _	CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3 Check station 8XCS3 indicator ( Area Secured )	MODE 16 BLINKS ONCE
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3	MODE 16 BLINKS ONCE BLINKS ONCE
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator (Area Secured) Check station 8XCS2 Check station 8XCS2 Check station 8XCS2 indicator (Area Secured) Check station 8XCS3 Check station 8XCS3 Check station 8XCS3 indicator (Area Secured) Check station 8XCS4 Check station 8XCS4 Check station 8XCS4 Check station 8XCS5	MODE 16 BLINKS ONCE BLINKS ONCE BLINKS ONCE
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3 Check station 8XCS3 Check station 8XCS3 indicator ( Area Secured ) Check station 8XCS4 Check station 8XCS4 Check station 8XCS5 Check station 8XCS5 Check station 8XCS5 Check station 8XCS5	MODE 16 BLINKS ONCE BLINKS ONCE BLINKS ONCE
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY EXIT	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3 Check station 8XCS3 Check station 8XCS3 indicator ( Area Secured ) Check station 8XCS4 Check station 8XCS4 Check station 8XCS5 Check station 8XCS5 Check station 8XCS5 indicator ( Area Secured ) Gate 8GE1 with Simultaneous Release	MODE 16  BLINKS ONCE BLINKS ONCE BLINKS ONCE ON
1.2		CLOSE VERIFY PLACE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY ACTIVATE VERIFY	Gates 8ED1 and 8GE1 Gates 8ED1 and 8GE1 are Peer 17 in Mode 16 Peer 17 is in Controlled Access Check station 8XCS1 Check station 8XCS1 indicator ( Area Secured ) Check station 8XCS2 Check station 8XCS2 indicator ( Area Secured ) Check station 8XCS3 Check station 8XCS3 Check station 8XCS3 indicator ( Area Secured ) Check station 8XCS4 Check station 8XCS4 Check station 8XCS5 Check station 8XCS5 Check station 8XCS5 Check station 8XCS5	MODE 16 BLINKS ONCE BLINKS ONCE BLINKS ONCE

1.3	To Sweep	Zone <b>8Z2</b>	
	CLOSE	Gates 8GE2, 8MD1, 8EL1, 8ED2 and 9GS1-I&O	
	VERIFY	Gates 8GE2, 8MD1, 8EL1, 8ED2 and 9GS1-I&O are	CLOSED
	RESET	Gate 8EL1, 8ED2 and 8MD1	
	VERIFY	Gate <b>8EL1</b> , <b>8ED2</b> and <b>8MD1</b> are	RESET
	PLACE	Peer 17 in Mode 16	
	VERIFY	Peer 17 is in Controlled Access	MODE 16
	VERIFY	MCR sees Zone <b>8Z2</b>	NOT SWEPT
	<b>ACTIVATE</b>	Check station 8CS6	
	VERIFY	Check station 8CS6 indicator ( Area Secured )	BLINKS ONCE
	<b>ACTIVATE</b>	Check station 8CS5	
	VERIFY	Check station 8CS5 indicator ( Area Secured )	BLINKS ONCE
	ACTIVATE	Check station 8CS3	
	VERIFY	Check station 8CS3 indicator ( Area Secured )	BLINKS ONCE
	ACTIVATE	Check station 8CS4	
	VERIFY	Check station 8CS4 indicator ( Area Secured )	BLINKS ONCE
	ACTIVATE	Check station 8CS2	
	VERIFY	Check station 8CS2 indicator ( Area Secured )	BLINKS ONCE
	ACTIVATE	Check station 8CS1	
	VERIFY	Check station 8CS1 indicator ( Area Secured )	ON
	EXIT	Gate 8GE2 with Simultaneous Release	
	VERIFY	MCR sees Zone <b>8Z2</b>	SWEPT
_			

☐ Check for test acceptance to Sweep Zone 8Z2

1.4 Test of retention of sweep with legal opening of gate 7GS1 with Peer 7 in CA, Mode 16 and Peer 17 in CA Mode 16 and loss of sweep with illegal opening of gate 7GS1.

	PLACE	Peers 7 & 17 in Controlled Access	
П	VERIFY	Peer 7 is in	<b>MODE 16</b>
Ī	VERIFY	Peer 17 is in	<b>MODE 16</b>
	VERIFY	The warning lights and <b>LED message</b> on both sides of the gate	
		indicate:	ON
	~	Call MCR for Crossover Amber	ON
_	SWEEP	Zone 6Z2	
	VERIFY	MCR sees Zone 6Z2	SWEPT
	SWEEP	Zone 7Z1	
	VERIFY	MCR sees Zone 7Z1	SWEPT
	VERIFY	<b>7GS1</b> gatebox lights are as follows:	
		Area Secured (S11) Amber	ON
		Area Secured (S10) Amber	ON
	OPEN	Gate 7GS1-I with Simultaneous Release	
	VERIFY	MCR sees Zone 7Z1	SWEPT
П	VERIFY	MCR sees Zone 6Z2	<b>SWEPT</b>
Ō	VERIFY	MCR sees Peer 7 is in	<b>MODE 16</b>
	VERIFY	MCR sees Peer 17 is in	<b>MODE 16</b>
П	VERIFY	<b>7GS1</b> gatebox lights are as follows:	
_		Area Secured (S11) Amber	ON
		Area Secured (S10) Amber	ON
	CLOSE	Gate 7GS1-I	

	OPEN	Gate 7GS1-I without Simultaneous Release	
П	VERIFY	MCR sees Zone 7Z1	NOT SWEPT
Ē	VERIFY	MCR sees Zone 6Z2	NOT SWEPT
ñ	VERIFY	MCR sees Peer 7 is in	MODE 16
Ī	VERIFY	MCR sees Peer 17 is in	MODE 16
Ō	VERIFY	<b>7GS1</b> gatebox lights are as follows:	
_		Area Secured (S11) Amber	OFF
		Area Secured (S10) Amber	OFF
	CLOSE	Gate 7GS1-I	

Check for test acceptance of retention of sweep with legal opening of gate 7GS1 with Peer 7 in CA, Mode 16 and Peer 17 in CA, Mode 16 and loss of sweep with illegal opening of gate 7GS1

1.5 Test of retention of sweep with legal opening of gate 7GS1 with Peer 7 in XA, Mode 17 and Peer 17 in CA Mode 16 and loss of sweep with illegal opening of gate 7GS1

	PLACE VERIFY VERIFY VERIFY	Peer 7 Controlled Access, Mode 17 Peer 7 is in Peer 17 is in Controlled Access The warning lights and LED message on both sides of the gate indicate:	MODE 17 MODE 16
0	SWEEP VERIFY SWEEP VERIFY	Call MCR for Crossover Amber Zone 6Z2 MCR sees Zone 6Z2 Zone 7Z1 MCR sees Zone 7Z1	ON SWEPT SWEPT
	VERIFY OPEN VERIFY	7GS1 gatebox lights are as follows: Area Secured (S11) Amber Area Secured (S10) Amber Gate 7GS1-I with Simultaneous Release MCR sees Zone 7Z1	ON ON SWEPT
	VERIFY VERIFY VERIFY VERIFY	MCR sees Zone 6Z2  MCR sees Peer 7 is in  MCR sees Peer 17 is in  7GS1 gatebox lights are as follows:  Area Secured (S11)  Amber	SWEPT MODE 17 MODE 16
	CLOSE	Area Secured (S10) Amber Gate 7GS1-I	ON
	OPEN VERIFY VERIFY VERIFY VERIFY	Gate 7GS1-I with without Simultaneous Release MCR sees Zone 7Z1 MCR sees Zone 6Z2 MCR sees Peer 7 is in MCR sees Peer 17 is in 7GS1 gatebox lights are as follows: Area Secured (S11) Amber Area Secured (S10) Amber	NOT SWEPT NOT SWEPT MODE 17 MODE 16 OFF OFF
	CLOSE	Gate 7GS1-I	

Check for test acceptance of retention of sweep with legal opening of gate 7GS1 with Peer 7 in XA, Mode 17 and Peer 17 in CA, Mode 16 and loss of sweep with illegal opening of gate 7GS1.

1.0		e 17 and loss of sweep with illegal opening of gate 7GS1.	out 17 and 1 ttl 17
	PLACE	Peers 7 & 17 in Controlled Access, Mode 17	
	VERIFY	Peer 7 is in	<b>MODE 17</b>
Ī	VERIFY	Peer 17 is in	<b>MODE 17</b>
Ī	VERIFY	The warning lights and <b>LED message</b> on both sides of the gate indicate:	
	SWEEP	Call MCR for Crossover Amber Zone 6Z2	ON
п	VERIFY	MCR sees Zone 6Z2	SWEPT
	SWEEP	Zone 7Z1	SWEII
	VERIFY	MCR sees Zone 7Z1	SWEPT
	VERIFY	<b>7GS1</b> gatebox lights are as follows:	SWELL
Ц	V EIGHT 1	Area Secured (S11) Amber	ON
		Area Secured (S10) Amber	ON
	OPEN	Gate 7GS1-I with Simultaneous Release	011
	VERIFY	MCR sees Zone 7Z1	SWEPT
ă	VERIFY	MCR sees Zone 6Z2	SWEPT
ă	VERIFY	MCR sees Peer 7 is in	<b>MODE 17</b>
ă	VERIFY	MCR sees Peer 17 is in	MODE 17
ä	VERIFY	<b>7GS1</b> gatebox lights are as follows:	
u		Area Secured (S11) Amber	ON
		Area Secured (S10) Amber	ON
	CLOSE	Gate 7GS1-I	
	OPEN	Gate 7GS1-I with without Simultaneous Release	
	VERIFY	MCR sees Zone 7Z1	NOT SWEPT
Ō	VERIFY	MCR sees Zone 6Z2	NOT SWEPT
Ō	VERIFY	MCR sees Peer 7 is in	<b>MODE 17</b>
ā	VERIFY	MCR sees Peer 17 is in	<b>MODE 17</b>
ā	VERIFY	<b>7GS1</b> gatebox lights are as follows:	
_		Area Secured (S11) Amber	OFF
		Area Secured (S10) Amber	OFF
	CLOSE	Gate 7GS1-I	
		ceptance of retention of sweep with legal opening of gate 7GS1 wi er 17 in CA, Mode 17 and loss of sweep with illegal opening of gat	
		END OF TEST PROCEDURE	
TTL: Sig	n for complet	ion of initial testing:	
]	Date:/_		
TTL: Sig	n for complet	ion of final testing:	
			_
]	Date:/_	/	